

REMARKS

This responds to the Office Action dated March 5, 2010. Claims 1-17 are pending in the application. Claims 6-17 are withdrawn from consideration. By this amendment, claim 1 is amended. Amendments to the claims are supported by the Specification as filed. No new matter is added.

Objections to the claims

Claims 1-5 are objected to because of the recitation of non-elected subject matter. Applicants request that this objection be held in abeyance until there is an indication of allowable subject matter.

Rejections under 35 U.S.C. §112

Claims 1-5 are rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite. Claims 1 and 5 are rejected under 35 U.S.C. §112, first paragraph, for allegedly failing to comply with the written description requirement. Applicants have amended claim 1 to delete the recitation of "a functional derivative" to obviate these rejections. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. §112 rejections of the claims.

Rejections under 35 U.S.C. §102

Claim 1 is rejected under 35 U.S.C. §102(b) as allegedly anticipated by Prasher (U.S. Patent No. 5,360,728, hereinafter "Prasher"). Applicants respectfully traverse this rejection.

In order to anticipate a claim, each and every element as set forth in the claim must be found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). Further, the identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

Applicants submit that Prasher does not disclose each element of claim 1. First, Prasher fails to disclose clytin or variants of clytin. Second, the aequorin variants disclosed in Prasher do not show at least 90% identity to SEQ ID NO: 1 (clytin) as recited in claim 1. For at least the above reasons, claim 1 is not anticipated by Prasher. Accordingly, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. §102(b) rejection of claim 1 over Prasher.

Claim 1 is rejected under 35 U.S.C. §102(a) as allegedly anticipated by Tsuzuki et al. (J. Biol. Chem., 280(40), 34324-34331, hereinafter "Tsuzuki"). Applicants respectfully traverse this rejection.

Tsuzuki fails to disclose each element of claim 1. Specifically, Tsuzuki fails to disclose clytin or variants of clytin. Furthermore, in contrast to claim 1, the aequorin mutants of Tsuzuki do not show at least 90% identity to SEQ ID NO: 1 (clytin). For at least the above reasons, claim 1 is not anticipated by Tsuzuki. Accordingly, Applicants

respectfully request reconsideration and withdrawal of the 35 U.S.C. §102(a) rejection of claim 1 over Tsuzuki.

Rejections under 35 U.S.C. §103

Claim 5 is rejected under 35 U.S.C. §103(a) as being allegedly obvious over either Prasher or Tsuzuki. Applicants respectfully traverse this rejection.

Claim 5 depends from claim 1. As discussed above, neither Prasher nor Tsuzuki disclose or teach the claimed photoproteins that show at least 90% identity to SEQ ID NO:

1. For at least the above reasons, claim 1 is not obvious over Prasher or Tsuzuki. Because claim 5 depends from claim 1, claim 5 is also not obvious over Prasher or Tsuzuki. Accordingly, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of claim 5 over either Prasher or Tsuzuki.

CONCLUSION

Please charge any fee deficiency or credit any overpayment with respect to this paper to Deposit Account Number 01-2300, referencing Attorney Docket Number 100506.00028.

Respectfully submitted,

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